

# VERSACOAT

*VERSACOAT\* organic surfactant is a multi-functional additive which serves as an emulsifier and wetting agent in the VERSA\* oil mud systems. Secondary benefits include improved thermal stability and High-Temperature, High-Pressure (HTHP) filtration control. The product is effective over a wide temperature range and in the presence of contaminants and for reducing the adverse effects of water contamination.*

## Typical Physical Properties

Physical appearance.....	Dark amber, viscous liquid
Specific gravity .....	0.90-0.97
Flash point.....	83°F (28°C) (PMCC)
Pour point.....	-20°F (-28.9°C)

## Applications

VERSACOAT additive functions as a wetting agent and secondary emulsifier when used in conventional, low-fluid-loss, high-lime systems in combination with VERSAMUL\* additive. In this application, the product oil-wets barite and drill solids to prevent water-wet solids; it improves thermal stability, rheological stability, filtration control and emulsion stability; and it improves the fluid's resistance to contamination. Concentrations for initial formulations range from 1 to 3 lb/bbl (2.85 to 8.6 kg/m<sup>3</sup>) when used as a wetting agent, with occasional daily treatments.

VERSACOAT additive functions as the primary emulsifier when used in relaxed-fluid-loss, lower-lime systems, in combination with VERSAWET\* additive. In this application, the product forms a stable, water-in-oil emulsion and provides a degree of oil-wetting. Concentrations for initial formulations range from 2 to 8 lb/bbl (5.7 to 22.8 kg/m<sup>3</sup>) when used as the primary emulsifier, with occasional daily treatments. High-temperature applications and some "light" mineral oils require higher concentrations of VERSACOAT agent.

VERSACOAT additive is a primary ingredient in all VERSA system formulations. Consult the M-I SWACO Drilling Fluids Engineering Manual or individual system information for specific formulations. The recommended treatment levels depend on the oil-water ratio, anticipated temperatures, desired properties and the other products used in the formulation. The VERSA family of systems includes VERSADRIL\* (diesel), VERSACLEAN\* (mineral oil), VERSAPORT\* (elevated low-shear-rate viscosity) and VERSACORE\* (minimal-water) systems.

# M-I SWACO

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## ***Advantages***

- Wide application, including higher-lime, conventional and lower-lime, relaxed VERSA systems
- Improves emulsion stability
- Improves oil-wetting and prevents water-wet solids
- Maintains stable water-in-oil emulsion and helps prevent water in HTHP filtrate
- Improves thermal stability, rheological stability, filtration control and contamination-resistance of oil-base muds
- Effective at counteracting the adverse effects of water contamination such as high viscosity, low-emulsion stability and water-wet solids

## ***Limitations***

- Overtreatment with VERSACOAT additive can thin VERSAPORT systems under certain conditions
- Environmental restrictions concerning the use of oils and oil-base fluids should be considered since VERSACOAT is used in conjunction with oil

## ***Toxicity and Handling***

Bioassay information is available upon request.

Handle as an industrial chemical, wearing protective equipment and observing the precautions described in the Material Safety Data Sheet (MSDS).

## ***Packaging and Storage***

VERSACOAT additive is packaged in 55-gal (208-L) drums and 5-gal (18.9-L) cans.

Store in a dry, well-ventilated area. Keep container closed. Keep away from heat, sparks and flames. Store away from incompatibles. Follow safe warehousing practices regarding palletizing, banding, shrink-wrapping and/or stacking.



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